## WHAT IS CLAIMED IS:

- 1. A flexible weighing device comprising:
  - a) at least one measuring cell, which cell yields an electrical signal proportional to its deformation;
  - b) a processing circuitry, which circuitry computes the overall signal resulting from the electrical signal from the at least one measuring cell; and
  - c) a display, which shows the overall signal computed by the processing circuitry.
- 2. The device of claim 1, wherein the at least one measuring cell is flexible.
- 3. The device of claim 1, wherein the at least one measuring cell is non-flexible.
- 4. The device of claim 1, wherein there are at least two measuring cells flexibly connected.
  - 5. The device of claim 4, wherein the at least two measuring cells are flexible.
  - 6. The device of claim 4, wherein the at least two measuring cells are non-flexible.
- 7. The device of claim 4, wherein at least one of the at least two measuring cells is non-flexible.
- 8. The device of claim 4, wherein at least one of the at least two measuring cells is flexible.
  - 9. The device of claim 1, wherein the processing circuitry uses cable connections.

- 10. The device of claim 1, wherein the processing circuitry uses wireless connections
- 11. The device of claim 1, wherein the processing circuitry uses a combination of cable and wireless connections.
- 12. The device of claim 1, wherein the processing circuitry is integrated onto the said weighing device.
- 13. The device of claim 1, wherein the processing circuitry is separated from the said weighing device.
  - 14. The device of claim 1, wherein the display is a visual display or an audio display.
  - 15. The device of claim 1, wherein the display is flexible.
- 16. The device of claim 14, wherein the display is integrated onto the said weighing device.
- 17. The device of claim 14, wherein the display is separate from the said weighing device.
- 18. The device of claim 1, wherein the at least one measuring cell provides instantaneous signal.
- 19. The device of claim 1, wherein the measuring cell is constructed of a flexible resistive elastomer.

- 20. The device of claim 1, wherein the measuring cell is constructed of a flexible resistive elastomer embedded in a flexible insulating elastomer.
- 21. The device of claim 1, wherein the measuring cell is constructed of a piezo-resistive sensor.
- 22. The device of claim 1, wherein the measuring cell is constructed of a 1-dimensional (semi-)conductive elastomer.
- 23. The device of claim 4, wherein the at least one measuring cell is flexibly connected by a flexible insulating elastomer.
  - 24. A method for measuring the weight of a moving object, said method comprising
    - 1. providing on a surface a flexible weighing device comprising
      - a) at least one measuring cell, which cell yields an electrical signal proportional to its deformation,
      - b) a processing circuitry, which circuitry computes the overall signal resulting from the electrical signal from the at least one measuring cell, and
      - c) a display, which shows the overall signal computed by the processing circuitry,
    - wherein said measuring cell provides an instantaneous signal that is processed by the processing circuitry and shown on the display; and
    - moving said object over the flexible weighing device in a manner sufficient to allow the measuring cell to deform;
    - 3. reading the weight shown on the display.